User manual
ILAND everywhere

iLAND®
GREEN TECHNOLOGIES

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www.iland-solar.com

Contents

Caution **p. 3**

Definition **p. 4**

Operating instructions **p. 5**

Do's and don'ts regarding the tube and the battery **p. 7**

Rules to respect regarding the flexible solar panel **p. 8**

General rules **p. 9**

Specification sheet **p. 10**

Certifications **p. 11**

Charging of electronic devices **p. 12**

Loading of ILAND **p. 15**

Accessories **p. 16**

Time of charge and autonomy **p. 17**

Warranty, limitation of liability **p. 18**

Caution

This user's manual contains information regarding safety, installation, performance, maintenance and technical aspects which you should be familiar with before using your 'ILAND everywhere' solar power kit.

To avoid any risk of personal injury, please read the operating instructions in this guide. This guide can be downloaded on the internet site of : www.iland-solar.com.

Definition

ILAND everywhere is an **autonomous, portable solar generator** meant for chalets, first aid, marine, ATV, cabins, camping, private houses, expeditions, bungalows, caravans, islands, hotel areas, gardens, beaches, terraces, mountains, rescue, humanitarian aid, watching, irrigation, etc.

ILAND everywhere allows the charging of the following devices (non-exhaustive list) :

Operating instructions

Solar panel

- Chose a clean, flat location. Place ILAND on a steady surface (horizontally), on its blades (fig. 1).
- Unscrew - a 90° turn - the central ring to separate the battery from the tube (fig.2).
- Remove, by taking out the main bag, the ring-pins, as well as the solar panel and unroll the solar panel. (fig.3).
- Use the corner grommets to properly fasten the flexible solar panel to the ground with ring-pins (fig.4). The solar panel must be secured to prevent vibrations and flapping in the wind. In strong wind, fix the solar panel to the ground with U-pins.
- Mount the solar panel with its cell side (purple side) facing towards the sun in a location that will receive direct sunlight throughout the day (fig.5). Optimal charging performance is obtained when sunlight falls perpendicular to the flexible solar panel.
- Connect the solar panel lead to the battery to charge it. (fig.6).
- Battery charging time varies between 6 and 10 hours. This depends on the light intensity and positioning of the solar panel in relation to the sun. See to it that the panel is always clean. Wipe the surface with a soft cloth if necessary.

fig. 1

fig. 2

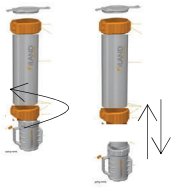


fig. 3

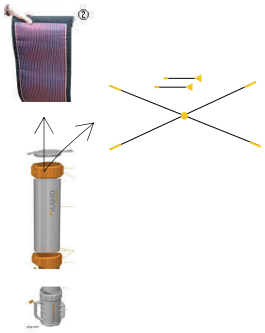


fig. 4

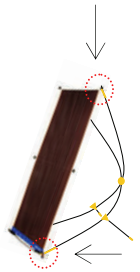


fig. 5

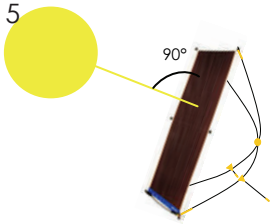
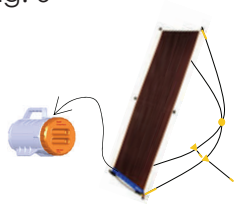


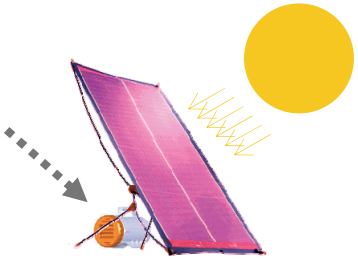
fig. 6



Operating instructions

- Once everything unrolled and during the charging, always put the battery in the shade of the solar panel(fig. 7).
- Once the battery charged, remove the plug from the battery, remove the rings and carefully roll up the solar panel. Put it all away in the tube in order to protect the solar panel from dust and external damage.

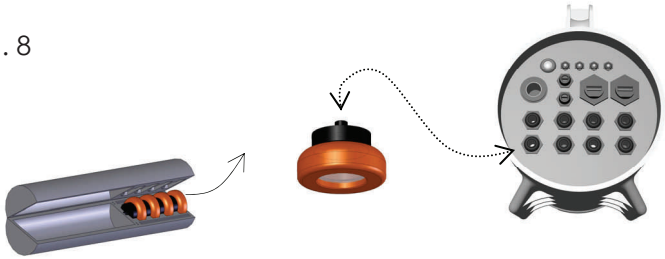
fig. 7



Lighting

- Open the case. Remove the lamp from its niche. Unroll the lead provided and plug the connector into the lamp. Then plug the other end of the lead to the battery. (fig. 8) Proceed in the same way for each additional lamp. You may connect up to eight lamps if necessary.
- To disconnect the lamp, simply remove the connector from the battery. Also remove the connector from the lamp and carefully place everything in the case.

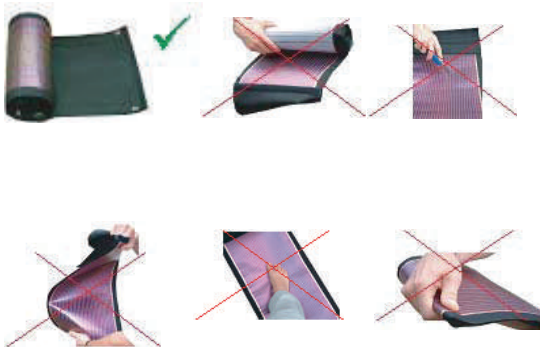
fig. 8



Do's and don'ts regarding the tube and the battery

- DO NOT drop or throw the tube, lamps, pump or solar panel on the ground. ALWAYS install the tube, lamps, pump and solar panel in a suitable, steady place.
- DO NOT leave the tube, lamps, pump and solar panel near a source of heat or cold which could alter or deform the plastic polymers and the batteries.
- DO NOT scratch or cut the tube, lamps, pump or solar panel with any sharp objects.
- DO NOT sit or stand on the tube, lamps, pump or solar panel.
- DO NOT immerse the tube, lamps, pump and solar panel in water.
- DO NOT expose the connectors to bad weather conditions or ambient environment.
- DO NOT plug non-compliant or non-adapted objects or electrical elements into the connectors.
- DO NOT use the pump unless it is totally immersed in water.
- DO NOT expose the LED lamps to bad weather conditions.
- DO NOT try to charge the battery below 0°C and above 45°C, avoid direct sun exposure.
- DO NOT use the battery to drive objects.
- DO NOT open the battery nor damage it.
- ALWAYS close the lid of the tube during transportation or when using the solar panel.
- ALWAYS interlock the upper part with the battery part during transport or when using the solar panel.
- ALWAYS clean the tube, lamps, pump, solar panel and connectors after use.
- ALWAYS use USB1 and USB2 connectors with adapted devices and NEVER expose the connectors to external electrical sources.
- ALWAYS use the universal cigarette-lighter connector with adapted devices and NEVER expose this connector to external electrical sources.
- ALWAYS use the lamp connectors solely with 'ILAND everywhere' lamps and NEVER expose these connectors to external electrical sources.
- ALWAYS charge 'ILAND everywhere' with the solar panel from the tube, NEVER try to charge the 'ILAND everywhere' battery with other solar panels than those included in the 'ILAND everywhere' kit or with external electrical sources.
- ALWAYS use the connections in a well-ventilated area, free from flammable gases or steams.

Rules to respect regarding the flexible solar panel



- DO NOT fold or crease the flexible solar panel. Any wrinkle on the solar module may cause a short circuit, impair its performance or even destroy the product.
- ONLY handle the flexible solar panel using the textile parts.
- DO NOT scratch or mark the flexible solar panel with a sharp object.
- DO NOT sit or stand on the flexible solar panel.
- DO NOT immerse the flexible solar panel in water.
- ALWAYS roll the solar panel so that its cell side is facing outwards (purple side). Follow correct rolling procedure described opposite.
- ALWAYS roll the solar panel so that its cell side is facing outwards (purple side). Follow correct rolling procedure described opposite.

Caution : The photovoltaic module produces electricity when exposed to sunlight. The voltage from a single module is not considered as hazardous.

General rules

How do I know if the panel is functioning correctly ?
You can check that the panel is charging by pressing the green knob on the connector side.

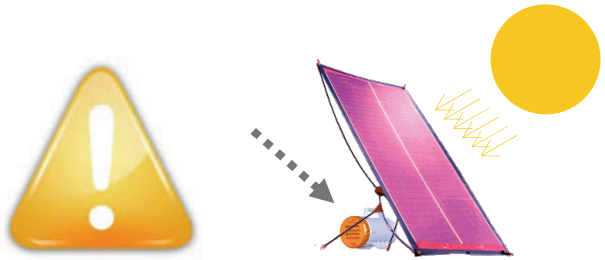
Can the flexible solar panel drain my battery overnight?
No. A built-in 'anti-return' diode prevents the battery from going flat.

Can I leave it outside permanently?
Yes, but ensure that it is correctly installed and secured to avoid any damage caused by the wind and that it is sheltered from bad weather conditions. The connectors must be clean at all times and securely plugged in. Beware that your 'ILAND everywhere' is not stolen while you are away.

What happens if the device gets wet ?
The entire tube is resistent to humidity, if temporary. Wipe it with a dry cloth. Avoid all direct contact with water.

How do I clean and maintain it?
The solar panel and tube do not require maintenance by a specialist. Wipe the tube, its components and the solar panel's surface with a damp cloth or a mild soapy solution after each use. Do not use abrasive cleaners or solvents which might damage the elements of the 'ILAND everywhere' product.

Battery



(F) En charge : **mettre la batterie à l'ombre du panneau solaire.**
(IT) In carica : **mettere la batteria all'ombra del pannello solare**
(GB) When charging : **put the battery in the shadow of the PV**
(ES) En carga : **poner la bateria en la sombra del panel solar**
(DE) Im laden : **der Akku im Schatten der Solarzellen setzen muss**

1

(FR) Rechargez la batterie **tous les 3 mois** à l'aide du panneau solaire.
(IT) **Ogni 3 mesi** ricaricare la batteria con il pannello solare.
(GB) Charge the battery **every 3 months** with the solar panel.
(ESP) Recargue la batería **cada 3 meses** mediante el panel solar.

2

(FR) Après 3 mois de non utilisation, rechargez la batterie à l'aide du **chargeur de batterie 220 V**.
(IT) Dopo 3 mesi senza uso, ricaricare la batteria utilizzando il **caricabatteria 220 V**.
(GB) After 3 months without using the battery, charge the battery with the **220V battery charger**.
(ESP) Tras 3 meses sin haberlo utilizado, recargue la batería mediante el **cargador de batería 220V**.

Chargeur 220V/Caricabatteria 220V/battery charger 220V /cargador de batería 220V : **Set 006**

Specification sheet

Battery
Technology : LiFePO4
Maximum voltage : 14.6V
Operating voltage : 12.8V
Operating capacity : 15Ah @25°C @ 0.2C
Operating current : 10A, max.16A
Peak current : 25A

Lamps
Technology : LED
Maximum voltage : 15V
Minimal voltage : 10.5V
Operating voltage : 12.8V
Operating current : 350mA
Operating power : 4.4W
Lumens = 126 to 312 lm @25°C @350mA
T° Kelvin = 3500K

Solar panel
Technology : amorphous VHF technologies Flexcell
Power : 28 W
Operating voltage (Vmpp) : 15 V *
Operating current (Impp) : 1800 mA *
Open circuit voltage (Voc) : 23 V *
Short circuit current (Isc) : 2400 mA *
Dimensions : 642 mm x 1310 mm
Active part : 572 mm x 1220 mm
Thickness : 1.2 mm
Operating range temperature : -20°C to +60°C
Weight : 1500 g

* measured @ Standard Testing Conditions (STC),1000W/m², AM 1.5, 25°C

Loading range temperature : 0°C to +45°C
Operating range temperature : -20°C to +60°C

Basic contents
A tube with 2 parts;
Container : solar panel, case with LED lamps;
Battery pack : connector for 8 LED lamps, 2 USB, 1 universal socket, cigar lighter type.

Options
Additional LED lamps
Water pump;
Extension leads for LED lamps and solar panel;
Adaptor for cigar lighter socket;
12V and 220V charger;
Autonomous LED lamp

Other options : www.iland-solar.com

Output
USB port : current 500mA, voltage 5V
Universal cigar lighter connector : current 16A, voltage 12V

Certifications

Declaration of conformity
Relative to the directives on the electromagnetic broadcasts, and the preferential origin of ILAND Everywhere

We, ILAND green technologies SA declare that the product :

ILAND everywhere :
Autonomous and portable solar device

complies with the legal requirements on the subject, in particular with the CE, FCC and Swissmade standards, relative to the electromagnetic broadcasts and the safety of devices. Our product complies with the following national and international standards :

→ *EN 55015 : 2000 + A1:2001 + A2:2002*
→ *EN 61547 : 1995 + A1:2000*
→ *FCC Part15 Subpart B (Class A)*
→ LPM; RS 232.11

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

Neuchâtel, 1 May 2009

Daniele Oppizzi CEO

ILAND green technologies SA
Parc scientifique et technologique NEODE
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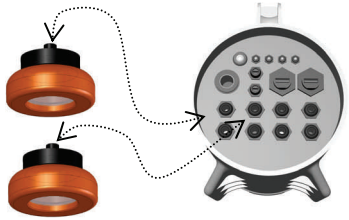
CP 672
CH - 2000 Neuchâtel

Charging of electronic devices

The distributors will be able to inform you about the recommended accessories for ILAND everywhere.

Several methods can be used to plug or charge electronic devices with ILAND everywhere:

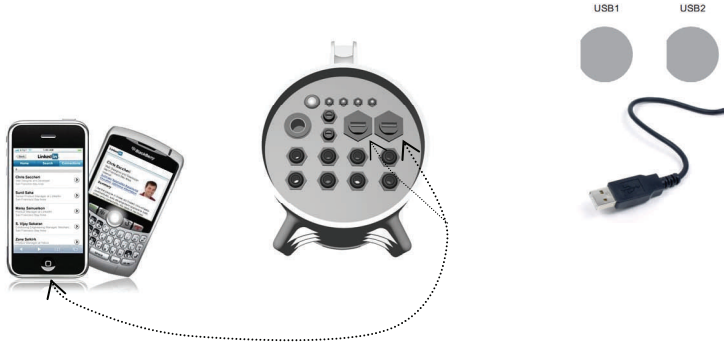
⊙ **Connection on foreseen connectors**



The lamps must be connected on their dedicated connectors. 8 connectors are foreseen on the lower part of the battery's connection side. Each connector is marked with the following logo :

⊙ **Direct connection on USB ports**

A lot of electronic devices can directly be charged on USB ports, for example mobile phones such as IPhones, IPod Nokia, etc.



Loudspeakers on USB ports

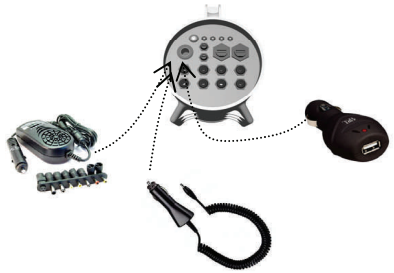
A lot of portable loudspeakers can be connected on ILAND. The most optimal way to use them is to use the USB port for the power supply of the speakers and to connect your IPhone or multimedia mobile phone in audio (Jack source).

Loading of electronic devices

⊙ **Direct connection on cigar lighter connector**

The universal cigar lighter connector is the strength of ILAND everywhere. With this connector, you can connect all the devices which consume until **200W maximum.**

The great majority of the electronic devices work on 12V (laptops, telephones, refrigerators, televisions, etc.).



To make them work, it is generally sufficient to buy a charger to the manufacturer, which can be connected on the cigar lighter connector (see picture below). Universal chargers exist, for example for computers, which do not depend on a single brand. If this is not the case, you can use an indirect connection by using a 220V inverter (explanations in the following section).

Charging a computer :

Supplying a 12V refrigerator :

Charging of electronic devices

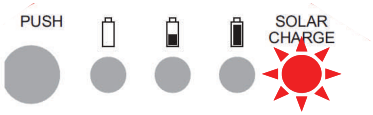
⊙ Indirect connection on a 220V inverter

If you do not possess a cigar lighter charger for your devices, you can also use a 220V inverter which will transform 12V into 220V. Nevertheless, we advise against using this solution, because you use an additional accessory which will create energy losses between your ILAND and your electronic device. Moreover, inverters are often fragile and little reliable in time.

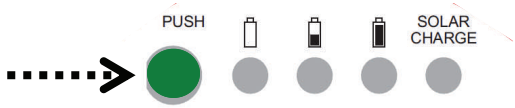
Do not buy inverters which have an operating power of more than 150W.

Charge of ILAND everywhere

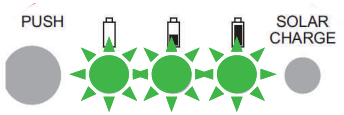
ILAND everywhere charges with the sun by using the solar panel. During the charge and to verify if the sunshine period is sufficient, the LED « solar charge » of the connection side of the battery has to turn on red. If this is not the case, the sunshine period is probably not sufficient.



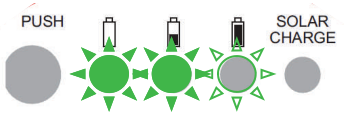
Once the charge started, you can control the stage of the battery by pushing the green button « push » which will allow to light LED lamps which control the charge.



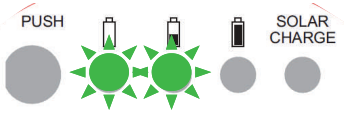
100% charged : 3 LEDs



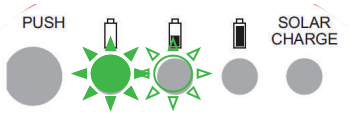
70% to 100% charged : 2 LEDs + 1 twinkling



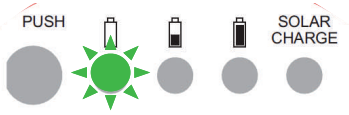
Less than 70% charged : 2 LEDs



30 to 69 % charged : 1 LED + 1 twinkling



Less than 30% charged : 1 LED



Charge of ILAND everywhere

For those who want to have their battery fully charged when leaving, there is a possibility to charge it from the 220V electricity network or from the cigar lighter charger of the car. These two options can be bought from our distributors.

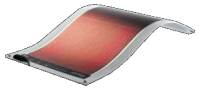
Accessories

Various accessories can also be used with ILAND everywhere. The distributors will be able to inform you about these accessories.

Standard pumps or irrigation pumps; drinking water filters;

Machine tools with batteries;

Extension leads for lamps;

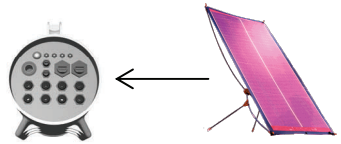


Additional solar panels;

Independent LED lamps.

Time of charge and autonomy

Estimated **time of charge** : 6 to 8h when normal weather



Consumption

	Battery + panel	Battery only
	120h	60h
	40h	20h
	14h	7h

	Battery + panel	Battery only
	20h to 30h	15h to 20h
	6h to 14h	3h to 6h
	10h to 16h	5h to 8h
	15h to 24h	8h to 18h
	4h to 16h	3h to 8h

Warranty, limitation of liability

ILAND green technologies SA (Route de la Gare 36, 2012 Auvernier, Suisse) makes no warranties, express or implied, including (but not limited to) any condition, warranty or term as to the satisfactory quality or fitness for purpose of the Product, except the following warranty : ILAND green technologies SA grants the original Purchaser of this Product a limited two (2) year warranty on the electrical performance of the solar panel, the battery and the lamps and a warranty of two (2) years on the defects of materials and workmanship : we guarantee that this device will produce a minimum of 70% of its rated electrical performance for a period of two (2) years from the purchase date, and that this Product is free of defects of materials and workmanship for a period of two (2) years from the purchase date.

Upon purchase or receipt, Purchaser shall inspect and/or test the quality of the delivered Product as soon as it is customary in accordance with usual business practice. Purchaser shall notify ILAND green technologies or the relevant retailer immediately if an alleged failure to conform to technical specifications of the Product is discovered.

If the Purchaser fails to examine the quality of the Product or to give notice according to this provision, the Product is deemed to have been accepted and any claim of breach of warranty with respect to such Product shall be waived. Operating instructions are communicated to the Purchaser together with any purchased Product.

This warranty does not cover any Product which has been damaged by acts of God, misuse, neglect or improper installation or application, or negligence in use, storage, transportation or handling, or following repair by anyone other than ILAND green technologies or ILAND green technologies' authorized representative.

ILAND green technologies' maximum responsibility under this warranty shall in any case not exceed the purchase price of the Product. ILAND green technologies shall in any event not be responsible for any damage to persons or to property, or for any loss of profit, expense, or any other incidental, consequential or special damages arising out of the use of, or inability to use, the Product.

Products returned under this warranty to ILAND green technologies or to ILAND green technologies' authorized distributor, will be repaired or replaced free of charge, or refunded at purchase price, at the option of ILAND green technologies. This warranty does not cover any transportation costs for return of module or for reshipment of any repaired or replaced module, or costs associated with installation, removal, reinstallation or adaptation, modification of the original Product. This warranty is only applicable if the returned Product is accompanied by the original invoice (purchase date and name of retailer must be indicated). ILAND green technologies will accept no return without prior authorization.

Any other form of warranty given by the retailer is entirely his own responsibility and no person is authorized to change the terms of this warranty of the manufacturer. This warranty does not affect the Purchaser's statutory rights under governing national laws as to consumers' rights. In case of any translation of this warranty, the English version shall be attached and shall prevail in the event of any inconsistency.